

e. A female of *pretiosa* confined at 3:46 p. m., September 27th with nineteen (19) hosts, then hatching. Thirteen (13) of these hosts were successfully parasitized. A control lot of hosts hatching at 3 p. m., the same day. Hence oviposition effective up to within 4 or 5 hours, at the most, of exclusion of the host.

d. Five (5) hosts nearly ready to exclude, the perfect embryos visible, were exposed to a female parasite at 10:15 a. m., September 28th. One of the hosts excluded at 10:55 a. m. The other four (4) were blackened by the effects of parasitism by October first, or previously. These four yielded adult parasites later. Control lot of hosts excluding at 10 a. m., September 28th. Hence oviposition of *pretiosa* effective up to the moment of exclusion of the host.

These experiments strongly indicate that parasitization is successful up to the very moment of exclusion of the host, despite the fact that the perfect embryos of *obsoleta* are active and very capable of caring for themselves. They are not conclusive, however. Other experiments performed, indicate that when the host embryo is fully formed, parasitization is less successful than otherwise, doubtless due to the greater vitality of the embryo. Hence, there appears to be a certain period in the development of the host, the period between the perfect formation of the embryo and exclusion, in which it is partially, not totally, immune from attack.

8. *Length of the period of oviposition.* It was absolutely impossible to determine this under anything like natural conditions from the very nature of the case. From the evidence gathered in the laboratory, it is certain that the period of oviposition is very short, but it is not felt that this evidence warrants a statement of definite limits.

What conclusions are possible may be induced from what is said in regard to this matter on a previous page.

9. *Changes undergone by parasitized hosts.* After being parasitized, the host eggs retain their normal appearance, until the egg of the parasite hatches, when they become characteristically blackened, an opaque or dull bluish black. They still retain their normal shape and size, and the color persists indefinitely, always serving to distinguish eggs that have been parasitized. After the emergence of the resulting parasite or parasites, through a rounded hole in the side of the host egg, the color and shape still persist, and so on until the empty shell is destroyed through natural agencies. The black color comes on gradually, the host at first becoming dusky, finally opaque and black-blue. Infertile hosts are affected in the same way.

10. *Length of the egg instar.* If it is true that the black color of the host is due to the hatching of the parasite's egg, then the following table shows lengths of the period of incubation at different times of the season of 1904, as indicated by this

change in color. The periods are, of course, but approximately correct, and are probably worthless. It has been indicated, from time to time, that the period of incubation in *Trichogramma* is always several hours longer than that of the host, at any given date. By comparing the records for the periods of incubation of the latter as given by Quaintance and Brues (1905), page 52, and the table following, it is readily seen that this is not borne out by the facts.

TABLE OF THE EGG INSTARS AT DIFFERENT DATES, 1904.

| Date hatched. | No. of observations | Length instar |      | Date hatched. | No. of observations. | Length instar |      | Average.                               |
|---------------|---------------------|---------------|------|---------------|----------------------|---------------|------|--|
|               |                     | Days.         | hrs. |               |                      | Days.         | hrs. |  |
| May 30        | 6                   | 3             | 5    | Sept. 14      | 50                   | 2             | 9    | 241 observations.                      |
| 31            | 4                   | 2             | 22   | 24            | 34                   | 2             | 17   |  |
| June 7        | 30                  | 2             | 22   | 28            | 9                    | 2             | 12   | 71 hours, or<br>2.95 days,<br>average. |
| 16            | 14                  | 2             | 16   | Oct. 1        | 33                   | 3             | 17   |  |
| 17            | 3                   | 2             | 13   | 5             | 5                    | 3             | 18   |  |
| 24            | 28                  | 2             | 4    | 17            | 4                    | 3             | 9    |  |
| 25            | 9                   | 2             | 14   | 19            | 12                   | 4             | 0    |  |

No records, unfortunately, were made during April, July and August, and late October.

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## THE ENTOMOLOGICAL SOCIETY OF AMERICA.

A meeting of the committee to organize a national entomological society, for which provision was made at the Philadelphia meeting of the Entomological Club of the A. A. A. S., was held June 28, 1906, in the entomological laboratory of Cornell University. The New York Entomological Society was represented by Mr. Carl Schaeffer, the Chicago Entomological Society by Dr. James G. Needham, the Jugatae (the Ithaca Society) by Professor J. H. Comstock, the Newark Entomological Society by Mr. J. A. Grossbeck, the Entomological Society of Ontario by Rev. Professor C. J. S. Bethune, and the American Entomological Society by Mr. J. Chester Bradley. At an adjourned meeting the Washington Entomological Society was represented by Mr. E. S. G. Titus.

The committee was organized by the appointment of Professor Comstock as chairman and Mr. Bradley as secretary.

The secretary then stated in brief the history of the present movement for the organization of a national entomological society. The parts of Mr. Lyman's two Presidential Addresses dealing with the organization of an entomological union were read and discussed. Discussion then followed as to the purposes for which such a society should exist and as to whether there was need for one. The opinion that there was such a need seemed to prevail, but it was urged that if the society be formed it should be based on broad and comprehensive grounds. It was then moved that it is the sense of this committee that the organization of a national entomological society is desirable. Every member in turn was called upon for an expression of opinion, and every one spoke in favor of the organization; but it was the feeling of the committee that the success of such a society would depend on the securing of cooperation of other societies as the Association of Economic Entomologists and the Entomological Club of the A. A. A. S.

It was suggested that provision might advantageously be made for committees on policy, as on education, on legislation, on museum methods, and on nomenclature.

Strong opposition was made to the formation of any independent code for entomologists; but it was believed that a committee on nomenclature might have legitimate ground for existence in voicing the peculiar needs of entomology in matters of nomenclature and in securing their adequate representation in the International Zoological Congress.

A sub-committee was appointed to draft a constitution and by-laws, which should embody the decisions reached by the committee, and to report them at an adjourned meeting.

The committee then discussed membership, dues, officers, elections and other matters. The decisions concerning these were subsequently embodied in the constitution and by-laws. The committee then adjourned until the following day.

At an adjourned meeting held June 29, 1906, the report of the sub-committee on constitution and by-laws was read and discussed. After the making of some changes the report was adopted, and the sub-committee was authorized to prepare and have printed a report of the committee together with the Constitution and By-laws, and to send them with an invitation to be present at the initial meeting of the society, to every entomologist in the country whose address could be learned, and to have them published in the entomological journals. The sub-committee was also authorized to call an initial meeting in New York City in connection with the mid-winter meetings of the A. A. A. S., to make arrangements for that meeting, and to transact such other business as may be necessary.

At a second adjourned meeting held June 30, 1906, it was decided to apply at once for affiliation with the American Association for the Advancement of Science, and such application was subsequently made.

J. CHESTER BRADLEY, *Secretary*.

## THE ENTOMOLOGICAL SOCIETY OF AMERICA.

### CONSTITUTION.

#### *Article I.*

##### NAME.

SECTION 1. This organization shall be known as *The Entomological Society of America*.

#### *Article II.*

##### OBJECTS.

SECTION 1. It shall be the purpose of this society to promote the science of entomology in all its branches, to secure cooperation in all measures tending to that end, and to facilitate personal intercourse between entomologists.

#### *Article III.*

##### MEMBERSHIP.

SECTION 1. The active membership of this society shall consist of two classes: *members and fellows*.